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ABSTRACT

This study explored the relationships between parents' reports of their children's play with imaginary playmates at home and (1) observational ratings of children's imagination, positive emotionality, concentration, social behavior and use of language during free play at nursery school, and (2) parents' records of their children's television viewing patterns at home. The activities of 141 three- and four-year-olds were observed and rated eight times over one year by trained observers during 10-minute periods of free play in nursery school. Imaginary playmate questionnaires were completed by 111 of the children's parents. Questions concerned indications of the presence and number of imaginary playmates, the frequency of play with such playmates, and the characteristics of the playmates, including the extent to which they reflected the influence of television characters. According to parents' reports, 55% of the children had imaginary playmates at home. Multiple regression analyses indicated that scores reflecting relative occurrence of imaginary playmates predicted the imaginative play of children in school, their positive affect and concentration during play, and their social interaction and cooperativeness. Reports of imaginary playmates tended to be negatively linked to occurrences of overt aggressive behavior (in boys), negatively linked to television-viewing frequency, and positively linked to more extended language use. Additional findings are reported on children's self reports, IQ, socioeconomic status, ethnic background and family structure. (Author/SS)

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Imaginary Playmates: Some Relationships To Pre-Schoolers' Spontaneous Play, Language and Television-Viewing

John Caldeira, Jerome L. Singer and Dorothy G. Singer

Yale University

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Abstract

Imaginary Playmates: Some Relationships To Pre-Schoolers' Spontaneous Play, Language and Television-Viewing

John Caldeira, Jerome L. Singer and Dorothy G. Singer

Yale University

This study explored the relationship between parents' reports of children playing at home with imaginary figures and the occurrence of imaginative behavior, positive or negative affect and prosocial behaviors during spontaneous play in nursery school. One hundred eleven three and four year olds were observed and rated eight times over a year during free play. According to parents' reports, 55% of the children had imaginary playmates at home. Multiple regression analyses indicated that scores reflecting relative occurrence of imaginary playmates predicted the imaginative play of children in school, their positive affect and concentration during play and their social interaction and cooperativeness. Reports of Imaginary Playmates tended to be negatively linked to occurrences of overt aggressive behavior (in boys) and television-viewing frequency and positively to more extended language use. Girls seemed more inclined to adopt both male and female superheroes from TV as fantasy companions while boys chiefly employed male figures.

Imaginary Playmates: Some Relationships To Pre-Schoolers' Spontaneous Play, Language and Television-Viewing

Parents and observers of children have often been intrigued by indications that children have imaginary playmates. These invisible companions or animated stuffed animals are often assigned quaint names and are frequently treated by the children as if they are material beings. The phenomenon of the fantasy playmate is of theoretical interest because it may be an early and dramatic manifestation of the imaginative capacities of the child. The possibility that imaginary playmates are an indication of psychopathology has also been proposed (Svendson, 1934, Murlock and Bernstein, 1972) and occasionally has puzzled and worried parents and teachers.

Previous research on imaginary playmates has emphasized the frequency of occurrence and some characteristics of both the playmates and the children who create them. A large number of studies have been reviewed by Masih (1978) with indications that the phenomenon is more widespread than had been recognized. Piaget (1962) had called attention to the manifestation of an imaginary playmate as part of the normal developmental process, which in most children includes a phase of symbolic play. Singer (1973) has elaborated this notion in relation to the nature of information-processing demands on the child and the potential adaptive function of imagery skills as part of the growth process. The

extensive use of "sighted" imaginary playmates by blind children was reported by Singer and Streiner (1966) but deaf children did not show a greater reliance on such compensatory playmates than did matched hearing controls (D. Singer & Lenahan, 1976). Compensatory or conflict-related functions of the imaginary playmate have been stressed in psychodynamic theories (Green, 1922, Fraiberg, 1959) but there is also evidence that the emergence of imaginary playmates may be a relatively adaptive or creative phenomenon in normal growth. Manosevitz, Prentice & Wilson (1973), Schaefer (1969), Turner (1972), and Singer (1973) have all pointed to relationships between reports of imaginary companions and tendencies towards general imaginativeness or creativity.

The specific focus of this study is upon the relationships between reports of imaginary playmates at home and (1) indications of imagination, positive emotionality, concentration and social behavior during spontaneous play, (2) frequency of television viewing, and (3) the use of language by the children during play. This study is one aspect of a more general examination of possible relationships between the patterns of home television-viewing and early manifestations of imagination, social behavior or aggression in the spontaneous play of children in nursery schools or daycare centers. (Singer & Singer, Note 1)

Two somewhat contradictory positions about the possible influence of television on a child's imaginative development may be proposed. It is quite possible that television provides a major stimulus to imaginative development. It presents the child with a complex potpourri of novel stories, characters, and settings which may become a stimulus for symbolic play in much the same way as fairy tales that are read to children. On the other hand, it is also possible that because of the tremendous attractive power of the television medium and the ease of viewing, the act of watching television establishes a passive orientation and preempts active efforts at exploration, development of imagery skills and other forms of adaptive behavior. An examination of these issues from a cognitive standpoint (Singer, 1978) suggests the possibility that extensive television-viewing may preclude practicing the skills that go into imagination or reading effectiveness.

If the imaginary companion represents an indication of a more imaginative development in the child, we hypothesized that children who manifest more evidence of imaginary playmates at home would also show more imaginativeness in their spontaneous activity in the nursery school. Since imagination and positive affect have been linked in a series of earlier studies (Singer, 1977), it was also hypothesized that play with imaginary friends at home should be an indication of a happier child, one who shows evidence in nursery school of other behavior correlates of imagination such as greater concentration, cooperation with peers, elation and the absence of overt aggression even in the nursery school.

A somewhat more extensive use of language has also been associated with imaginative play in children (Singer & Singer, 1976, Singer, Caldeira & Singer, Note 2) and may be expected to be characteristic of children with imaginary playmates. Talking to and answering for an imaginary friend may increase the vocabulary expressiveness of the child much as fantasy play seems to do so (Singer & Singer, 1976).

Method

Participants

One hundred forty-one three and four-year olds, 62 females and 79 males, who attended chiefly middle-class nursery schools or daycare centers in New Haven, Connecticut participated in this experiment. School and individual parental informed consents were obtained for interviewing and observing the children unobtrusively during the course of their spontaneous play over a one year period. The mean IQ was 116.7 with a S.D. of 14.3 for the children based on the Peabody Picture Vocabulary Test. Mean age was 48 months with a S.D. of 7.4. SES level on the Hollingshead-Redlich 5-Point Scale was 2.6 with a S.D. of 0.6. There were no significant differences between the sexes on these variables.

Procedure

Predispositional variables. Each child was individually tested for IQ using the Peabody Picture Vocabulary Test. A brief interview with the child (Singer, 1973) was also conducted to ascertain the child's range of imaginative activities. This interview included a question about imaginary playmates.

Imaginary playmate questionnaire. Parents received a detailed questionnaire concerning the play of children in relation to imaginary companions. The questionnaire was based in part on the early work of Hurlock and Burstein (1934). Questions included indications of the presence or absence of imaginary playmates, the frequency of such play and the number of such playmates. An overall measure of the extent of play with imaginary playmates was formed from an equal weighting and combination of the above questions. Questions were also included to collect normative data on the characteristics of the imaginary playmates and the play activities of the child with the imaginary playmate. Attention was also paid to the extent to which imaginary playmates reflected the influence of television characacters.

Play observations. Pairs of trained observers watched each child on two separate days, recording all activities within a ten minute period during early morning free play at the nursery schools. This procedure was repeated during early morning free play at the nursery schools. This procedure was repeating during three additional "Probe periods" several months apart throughout a year to yield a total of eight independent ten-minute observations of the children. Based on their careful behavioral descriptions of spontaneous play, the observers independently rated the protocols for a series of variables including imaginativeness of play, positive affect,

concentration, aggression, cooperation and other indications of moods (See Note 1). Inter-rater reliabilities were highly significant when evaluated by Cicchetti's variant of Kappa (Cicchetti, 1976). In addition to the behavioral variables, protocols were scored for a variety of language variables, of which number of words and mean length of utterance during ten minutes of spontaneous play were employed for analysis in the present study.

Television-viewing. Parents were trained at the outset of the research project on how to keep records of their children's television-viewing patterns. Schedules of current programming were made available to parents for each day of a two week period, and parents recorded specific programs watched by the children and the length of time spent watching (See Note 1). This procedure was carried out four times during the year to give a total of eight week-long samples (spread over the year) of television-viewing for each child. Attention in this paper is focused on the variable of average weekly television-viewing by the children.

Results

Imaginary playmate questionnaires were completed by 111 parents. To check on the possible selective nature of the respondents the parents' reports of imaginary playmates were compared with the self-reports by children which had been included in the Imaginative Play Predisposition Interview. No difference was found between reported

frequency of imaginary playmates in children of parents who did respond and in the frequencies reported by the children of the small number of parents who failed to respond, ($\chi^2(1) = .06$, $p > .50$). Children did report a higher frequency of imaginary playmates than did their parents, 65% indicating they had some form of make-believe friends compared to 55% of such reports from the parents' questionnaires. Since we wanted to look at average behavior over a full year, we relied on the parents' reports which had been obtained at midyear; the children's reports had been obtained at the beginning of the year.

The children who were reported as showing a high amount of play with imaginary playmates were of similar age and IQ to those children with little or no play with imaginary playmates. There were no significant sex differences in frequency although girls were reported as showing somewhat more such playmates.

When statistical analyses were carried out for each of the four probe periods to determine if children with imaginary playmates differed from those with none, some significant effects emerged although significance was not consistent across all of the probes. In general, children whose parents reported them as having imaginary playmates at home showed more imaginativeness in their spontaneous play in nursery school, more positive emotionality during such play,

more cooperative behavior with adults and somewhat more extended language usage. Parents' logs indicated that the imaginary playmate group was watching less television.

More striking evidence of the role of imaginary playmates in relation to overt behavior during play, language and TV-viewing emerged from correlational analyses.

Stepwise multiple regressions were carried out using the variables of Imaginary Playmates, Age, IQ, Socioeconomic Status, Ethnic Background, Imaginative Predisposition Measures, etc. to predict the children's scores on the behavior and language variables during spontaneous play at the nursery school. In this way, the unique and combined contributions of background factors and material relating to the child's home environment to the determination of behavioral traits observed at the nursery school can be identified. Sequential selection of variables consistently indicated that the Imaginary Playmate scores were chosen early and made sizable contributions to the best ordering of variables producing significant multiple Rs. Generally, variables like IQ or SES were less potent and did not appear in equations.

In general, children whose parents reported them as showing more evidence of play with imaginary playmates in the home also showed more imaginativeness and positive emotionality during play

at the nursery school. Multiple Regressions predicting imaginative play in the nursery school indicated that evidence of imaginary playmates was a significant contributor to the prediction equation with 5% unique variance for boys ($p<.05$). It failed to be a reliable predictor for girls.

In the prediction of positive emotionality such as laughing and smiling, the imaginary playmate variable contributed .25 ($p<.001$) unique variance in a multiple correlation coefficient of .73 for boys. This relationship was not statistically significant for girls.

When the Imaginary Playmates variable were included in an equation predicting concentration during play it contributed .22 unique variance ($p<.001$) indicating that children who show more evidence of imaginary playmates at home also exhibit high levels of concentration during play at the nursery school. Consistent with this finding is the influence of the Imaginary Playmates variable in predicting the manifestation of fear and anger during free play. In boys, a negative coefficient for imaginary playmates contributed a striking .79 ($p<.001$) of the variance to predict the occurrence of fearfulness. Similarly, .56 ($p<.001$) of the variance for anger is explained by the addition of a negative coefficient for imaginary playmates to the equation ($p<.001$). Liveliness was also partially explained by whether or not the child has any imaginary playmates with .04 unique variance, ($p<.05$).

Cooperation seems to be a characteristic of children with imaginary playmates. When an equation was constructed to predict the variable of Cooperation with Peers, the number of imaginary playmates a child has was a highly significant contributor explaining .53 of the variance for boys, ($p<.001$), and .34 of the variance for girls, ($p<.001$). When combined with low frequency of TV-viewing as a predictor, multiple correlations of .95 and .76 for boys and girls respectively are attained. Cooperation with Adults is also predicted from the Imaginary Playmates variable but with lesser confidence, (.08 and .23 of the variance) for boys and girls.

A negative relationship between aggression and imaginary playmates was apparent in boys with the imaginary playmates accounting for .06 ($p<.05$) of the variance in a multiple regression equation that included, as the strongest predictor, the amount of television viewed. Aggression in the girls was not as apparent as in boys and could not be predicted with great confidence from the background variables although girls who showed some overt aggressive behavior during play were significantly higher in frequency of TV-viewing ($p<.01$).

The language children spoke during play was best predicted by Age and IQ, although for boys the number of words spoken and mean length of utterances during play periods were partially explained by the Imaginary Playmates variable, accounting for .05 and .06 of the variance, respectively ($p<.05$). For girls, imaginary playmates were not included in the prediction equation although a low positive correlation between imaginary playmates and mean length of utterance was found, $r=.17$.

In defining the set of variables that predict the amount of television a child views, the imaginary playmates was a sizable negative contributor to the equation for boys predicting .40 of the variance, ($p<.001$) in the equation that ultimately yielded a multiple correlation of .84. In other words, boys who had no imaginary playmates were watching more TV. When the same analysis is performed for girls, a small opposite result is found with .08 common variance between imaginary playmates and amount of television viewed with other variables partialled out.

Normative results obtained from the parents' questionnaire indicate that the phenomenon of imaginary playmates is somewhat stronger in girls. One serendiptious finding was that boys were more likely to have make-believe animal playmates than were the girls ($X^2(1)=6.02$, $p<.02$). The girls in this study were significantly more likely to have a pretend friend of the opposite sex than were the boys ($X^2(1)=5.50$, $p=.02$). Of the girls with imaginary playmates, 42% of them had at least one male imaginary playmate, whereas only 13% of the boys were reported as having female imaginary playmates. About one third of the children who have imaginary playmates name them after real people they know, usually their peers. Over 90% of the children with imaginary playmates reportedly converse with the playmate.

Comparing the family structure of the children indicates that children without siblings were more likely to have imaginary playmates, $X^2(1)=7.66$, $p<.01$. This effect was strongest in girls; they were particularly likely to have imaginary playmates in the absence of younger siblings.

Discussion

The ability of the Imaginary Playmate variable to predict imaginative play, concentration and happiness during spontaneous play seems to indicate that the extent to which a child exhibits play with imaginary playmates is an indication of that child's imaginativeness in general. These results do not support the belief that imaginary companions are especially likely to occur among shy or maladjusted children. To the contrary, children with imaginary playmates were more inclined to show elation and positive emotionality during free play as well as more concentration. It seems that imaginary playmates are not a unique phenomenon, but rather a manifestation of imagination in general and may be an especially good indication of the extent that a child engages in fantasy. Manosevitz, Prentice & Wilson (1973) asked parents to rate their own children; they found that children with imaginary playmates were more adept at talking with adults and they found no differences between groups in the shyness-outgoing continuum.

An overall higher frequency of the occurrence of imaginary playmates was found in this study than in other reports which generally report about one third of children having imaginary playmates (Jersild, 1933, Manosevitz, Prentice & Wilson, 1973). This difference may be due to differences in method of assessment or the definition of imaginary playmate. Jersild (1933) had reported 79% of children as having at least anthropomorphized dolls or objects and our data are based on indications of transformation of stuffed animals to whom life and human characteristics are attributed.

Another indication of a possible adaptive function of imagination is the language differences that emerged for boys, although the effect was not as strong as was expected. Previous cross-situation correlations between observed imagination and mean length of utterance yielded correlations of about 10% common variance.

The results of the prediction of television-viewing are not conclusive. While there was a moderate effect of imaginary playmates for boys, the relationship did not hold for girls. The results presented should be interpreted as suggestive. A positive relationship was found between greater viewing of educational television programs such as Misterogers and Sesame Street and evidence that children had imginary playmates. This finding probably weakened the negative relationship of imaginary playmates to total TV frequency but suggests a more discriminating viewing pattern for these children.

Some rather interesting sex differences arose in the types of imaginary playmates observed in the children by their parents. Boys were more likely than girls to have non-human make-believe friends which, according to Ames and Learned (1946) would place girls higher on the "imagination gradient". This is quite possible; the phenomenon as a whole seems somewhat stronger in girls although Jersild (1963) believes this may be more a cultural artifact in that boys are less likely to reveal their fantasies. At free play in the nursery school, boys generally express more imagination (Singer, 1973). Girls were

more likely to have opposite sex playmates than were the boys, a finding also reported by Manosevitz, Prentice & Wilson (1973). Our data conform to numerous reports on the changing patterns of children's play (Singer & Singer, 1976) which suggest that while girls are moving in the boys' direction as far as games and playthings are concerned, boys show little tendency to adopt girls' games or toys. The availability of female super-characters such as Bionic Woman and Wonder Woman were reflected in girls' choices of some of these as fantasy friends. Girls also identified with Superman or Batman but boys showed almost no tendency to adopt Wonder Woman, Isis or Bionic Woman into their imaginary entourage.

The spontaneous comments reported by parents when asked what activities their children engaged in with the imaginary playmate indicated that the children use the imaginary playmate to project emotions, assign blame, corroborate stories and tell the imaginary playmate how unfair the world is. The most common activities were sociodramatic play in the absence of peers. It seems likely that a child who has the capacity for developing a make-believe friend is also acquiring other skills that may be useful for simply enjoying oneself during play but which may also pave the way for other adaptive cognitive and social benefits.

Footnotes

[1]This research was supported by NSF Grant DAR 6-20772, J.L. Singer and D.G. Singer, Co-Principal Investigators. Reprint requests should be sent to J.L. Singer, Department of Psychology, Box 11A, Yale Station, New Haven, CT 06520.

Reference Notes

I. A detailed description of reliability procedures, behavior recording and scoring and television log-keeping methods are presented in NSF Progress Report No. 2, Television-Viewing and Imaginative Play in Pre-Schoolers: A Developmental and Parent Intervention Study. J.L. Singer and D.G. Singer, Yale University, May 1978.

II. Singer, D.G., Caldeira, J. & Singer, J.L. The effects of television-viewing and predisposition to imagination on the language of pre-school children. Paper presented at the annual convention of the Eastern Psychological Association, Boston, 1977.

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